

DDN File List\Standard Drawings\Imparal\2008\approved\X-Supplemental\Issues\X-Supplemental\approved\CC07A.dgn 02-DEC-2008

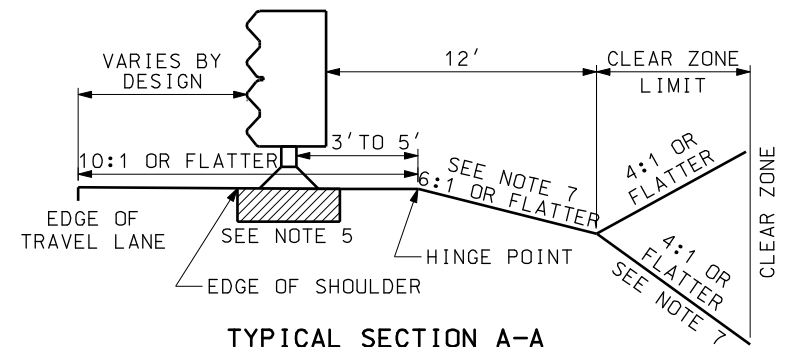
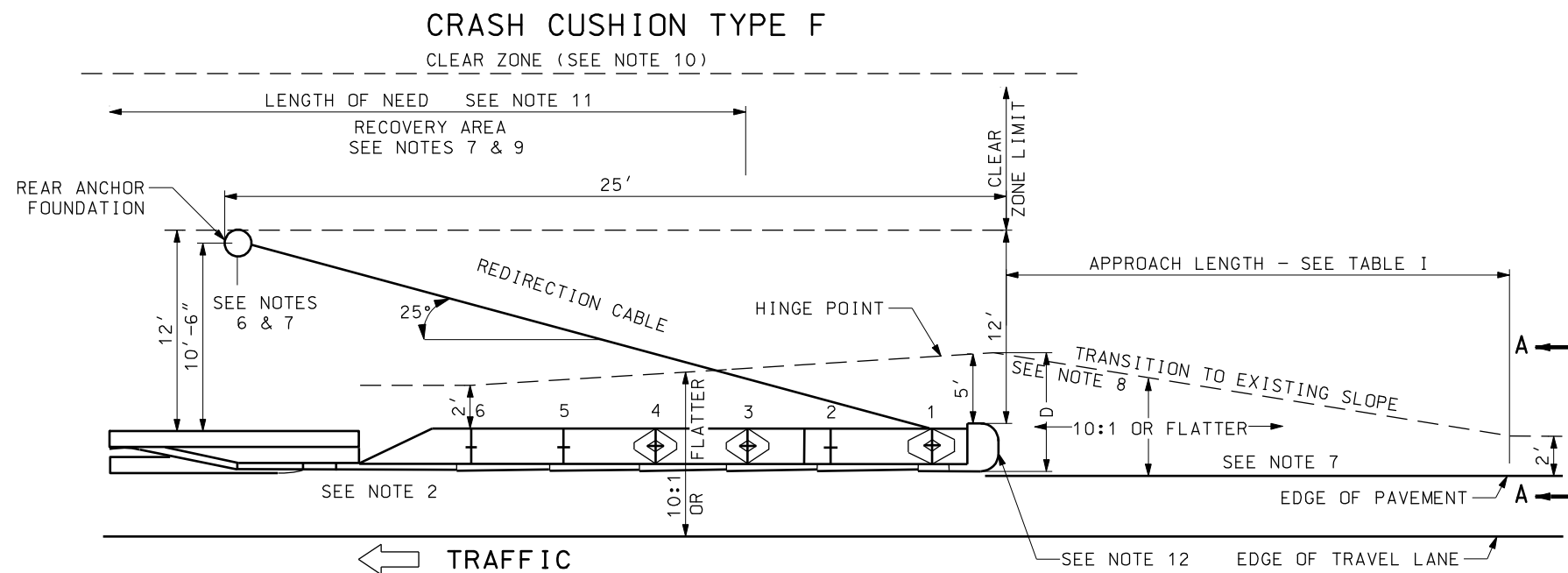
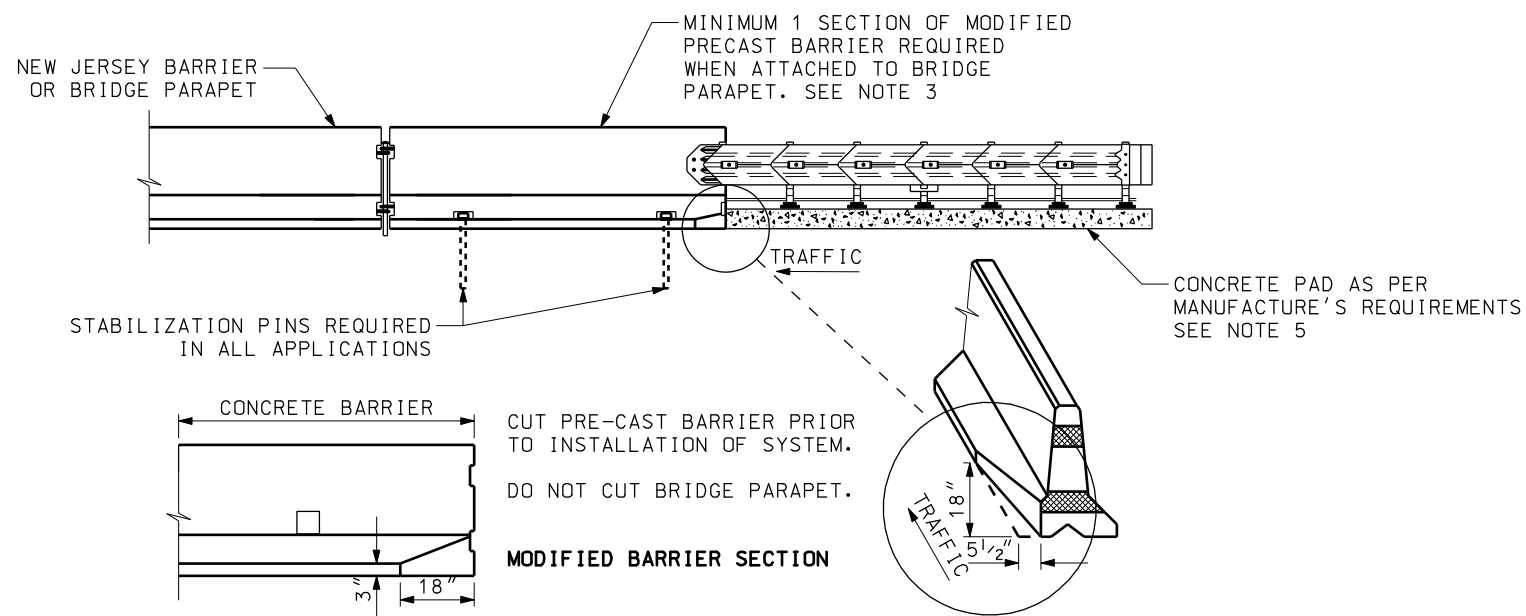


TABLE 1	
SPEED MPH	TAPER
LESS THAN 40	7:1
40 TO 55	10:1
60 TO 75	15:1

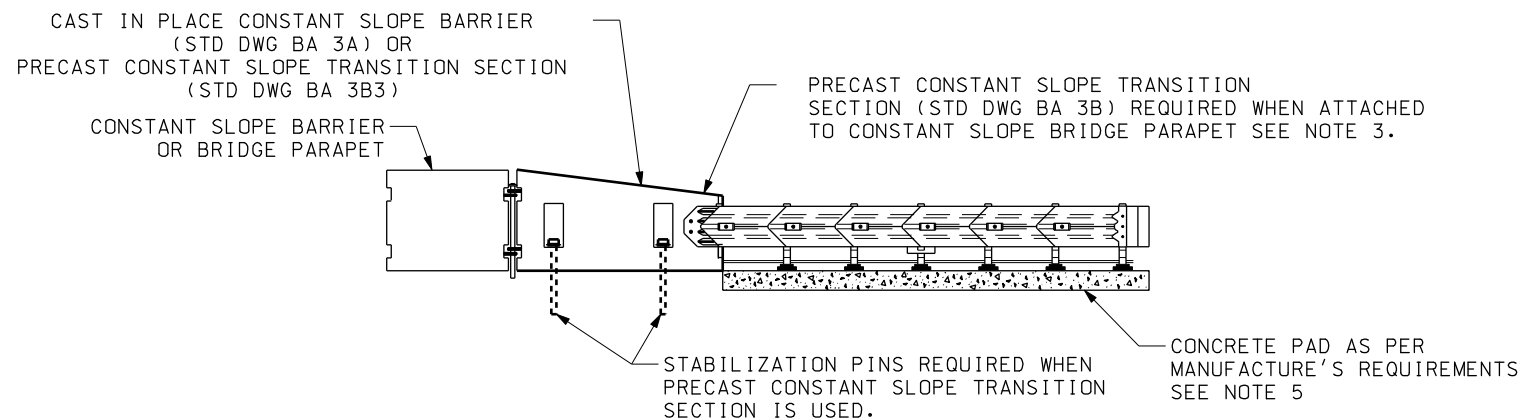
D X TAPER= APPROACH LENGTH

NOTES FOR CRASH CUSHION TYPE F

1. THE QUADTREND-350 IS MANUFACTURED BY ENERGY ABSORPTION SYSTEMS, SEE UDOT'S GUIDELINES FOR CRASH CUSHIONS FOR SPECIFIC SYSTEM DETAILS.
2. USE SYSTEM WHEN DIRECT ATTACHMENT TO BARRIER IS REQUIRED AND THE LONGITUDINAL SPACE IN FRONT OF THE HAZARD IS EQUAL TO THE REQUIRED MINIMUM LENGTH AS STATED IN TABLE 1. INSTALL SYSTEM AS PER UDOT'S AND MANUFACTURER'S SPECIFICATIONS.
3. CUT PRE-CAST NEW JERSEY BARRIER AS PER DETAIL, PRIOR TO INSTALLATION OF SYSTEM. SEAL CUT WITH THE SAME TYPE OF SEALER USED ON BARRIER. DO NOT CUT BRIDGE PARAPET. INSTALL 1 SECTION OF A PRECAST BARRIER, CUT AS PER DETAIL. INSTALL STABILIZATION PINS IN BARRIER SECTION. CONSTANT SLOPE BARRIER OR CONSTANT SLOPE BARRIER TRANSITION DOES NOT NEED MODIFICATION. THE REQUIRED BARRIER SECTIONS ARE A SEPARATE PAY ITEM FROM THE CRASH CUSHION.
4. HAVE SHOP DRAWING AVAILABLE ON SITE FOR REFERENCE DURING INSTALLATION.
5. INSTALL CONCRETE PAD AS PER MANUFACTURER'S REQUIREMENTS.
6. PLACE CABLE ANCHOR FOUNDATION IN SUCH A MANNER THAT THE REDIRECTING CABLE LAYS 6:1 OR FLATTER ON TOP OF THE GROUND, AND THE FOUNDATION WITH THE CABLE ANCHOR BRACKET ATTACHED DOES NOT EXCEED 4 INCHES ABOVE GROUND LEVEL. DO NOT BURY REDIRECTION CABLE.
7. COMPLETE SLOPE PREPARATION PRIOR TO INSTALLING SYSTEM.
 - A. USE A 10:1 OR FLATTER SLOPE IN APPROACH AREA.
 - B. A FORESLOPE AREA OF 12 FOOT X 25 FOOT AT 6:1 OR FLATTER REQUIRED FOR REAR ANCHOR FOUNDATION INSTALLATION
 - C. USE A 4:1 OR FLATTER FORESLOPE IN RECOVERY AREA, AFTER REAR ANCHOR SLOPES HAVE BEEN ESTABLISHED
 - 1) IF A 4:1 FORESLOPE IS IMPRACTICAL USE A MAXIMUM 3:1 FORESLOPE IN RECOVERY AREA. ESTABLISH RECOVERY AREA AT THE TOE OF THE 3:1 FORESLOPE OF 4:1 OR FLATTER.
 - D. USE OF 4:1 BACKSLOPE TO CLEAR ZONE LIMIT IN RECOVERY AREA PERMITTED ONLY AFTER THE REAR ANCHOR FORESLOPE S HAVE BEEN ESTABLISHED. IF A 4:1 BACKSLOPE IS IMPRACTICAL A 3:1 IS PERMITTED.
8. CONSTRUCT PLATFORM AS REQUIRED EVEN IF THE PLATFORM EXTENDS BEYOND THE CLEAR ZONE.
9. CLEAR THE RECOVERY AND APPROACH AREAS OF ANY FIXED OBJECTS OR HAZARDS.
 - A. DO NOT PLACE SIGNS OR POLES IN APPROACH AREA.
 - B. USE BREAKAWAY SIGNS OR POLES WHEN PLACED IN RECOVERY AREA. MAINTAIN A MINIMUM 10 FOOT CLEARANCE TO THE SIDES AND REAR OF SYSTEM.
10. ATTACH SAND CONTAINERS AT POSTS 1, 3 AND 4.
11. USE CURRENT EDITION OF ROADSIDE DESIGN GUIDE TO ESTABLISH CLEAR ZONE AND LENGTH OF NEED (LON) REQUIREMENTS.
12. INSTALL REQUIRED MARKING AS PER STD DWG CC 1.



USE THIS DETAIL WHEN SYSTEM IS INSTALLED WITH NEW JERSEY SHAPED BARRIER



USE THIS DETAIL WHEN SYSTEM IS INSTALLED WITH CONSTANT SLOPE BARRIER

SUPPLEMENTAL DRAWING

REVISIONS

1 10-30-08 MEE REVISION NOTE 9 AND TABLE 1.

UTAH DEPARTMENT OF TRANSPORTATION

STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION

SALT LAKE COUNTY

RECOMMENDED FOR APPROVAL

CHAIRMAN STANDARDS COMMITTEE

DEPUTY DIRECTOR

DATE

DATE

GRADING AND
INSTALLATION DETAILS
CRASH CUSHION
TYPE F
QUAD TREND 350

STD DWG
CC 7A